

wherein a duration of data blocks in the calling channel signal is equal to a duration of a speech coder's analysis period, and

wherein paging messages intended for the mobile station are included only in a subgroup of data blocks of the calling channel signal, the subgroup of data blocks being associated with the subgroup of mobile stations.--

IN THE ABSTRACT:

Please insert the Abstract of the Disclosure provided herewith as a separate sheet.

REMARKS

Reconsideration and allowance of the subject application are respectfully requested. Presently, claims 1-40 are pending. Upon entry of the foregoing amendments, claims 1-44 shall be pending.

Applicant notes the Examiner's indication that an Abstract of the Disclosure and an Information Disclosure Statement should be filed. Accordingly, an Abstract of the Disclosure is being provided herewith, and an Information Disclosure Statement is being filed concomitantly herewith.

Applicant notes with appreciation the Examiner's indication that claims 1-28 are allowed and that claims 31 and 35 are directed to allowable subject matter. By way of the present amendment, claims 31 and 35 have been rewritten in independent form, and

applicant therefore respectfully requests that the outstanding objection to claims 31 and 35 be reconsidered and withdrawn.

Presently, claims 29-30, 32-34 and 36-40 stand rejected under 35 USC § 103(a) as allegedly unpatentable over U.S. Patent No. 5,103,459 to Gilhousen et al. (hereinafter simply Gilhousen) in view of U.S. Patent No. 5,230,084 to Nguyen (hereinafter simply Nguyen). For the reasons provided below, applicant respectfully traverses this ground of rejection as it is applied to the amended claims.

By way of the present amendment, dependent claims 32 and 38 have been made to depend from now independent claim 31, and dependent claims 35 and 40 have been made to depend from now independent claim 35. Accordingly, applicant respectfully submits that dependent claims 32, 35, 38 and 40 are allowable over the art of record for at least the reasons that claims 31 and 35 are allowable, and applicant respectfully requests that the § 103 rejection of dependent claims 32, 35, 38 and 40 be reconsidered and withdrawn.

Additionally, independent claims 29 and 33 have been amended to recite that data blocks in a calling channel are equal to a duration of a speech coder's analysis period. As a result, applicant respectfully submits that independent claims 29 and 33 are allowable over the art of record for at least the reasons that claims 31 and 35 are allowable.

Applicants further submit that dependent claims 37 and 39, which depend from independent claims 29 and 33, respectively, are also allowable for at least the same reasons. Thus, applicant respectfully requests that the § 103 rejection of claims 29, 33, 37 and 39 be reconsidered and withdrawn.

With respect to independent claims 30 and 34, the Office Action acknowledges that Gilhousen does not disclose the recited assigning of a mobile unit to a subgroup of data blocks and transmitting paging messages to the mobile unit in only the subgroup. The Office Action then relies on the power savings aspects of Nguyen for these features.

However, Nguyen teaches power savings in the context of the well known Post Office Code Standard Advisory Group (POCSAG) standard and is therefore inapplicable in the code division multiple access context of the present invention. In other words, since the POCSAG standard is a frequency division multiple access approach based on simplex binary frequency shift keying (BFSK), a positive signal to noise ratio in the paging channel can be presumed (inasmuch as traffic and other control channels are assigned to carrier frequencies different than that used to for the paging channel). Consequently, mobile station receivers can easily be synchronized with the system even when powered up just prior to receiving a paging message. By way of contrast, no such positive signal to noise ratio exists in a code division multiple access system (inasmuch as all control and traffic channels simultaneously occupy a common portion of the spectrum). Thus, absent the teachings of the present invention, the power savings techniques of Nguyen cannot be successfully utilized in a code division multiple access system such as that described in Gilhousen.

Specifically, the present invention discloses that only by careful generation of the spread spectrum codes used to transmit control and traffic channels in a code division multiple access system can synchronization be maintained during a mobile power savings

mode of operation (i.e., when mobiles are assigned to subgroups of data blocks of a control channel as claimed). Such code generation is described in detail in, for example, U.S. Patent Application No. 07/866,865 (now U.S. Patent No. 5,353,352) incorporated by reference at page 8, lines 32-37, of the present reissue application.

Thus, absent the teachings of the present invention, one of skill in the art would not have been motivated to combine Gilhousen and Nguyen as is suggested in the Office Action and, even assuming *arguendo* that one would have been so motivated, such a combination would be unworkable absent the teachings of the present invention. Accordingly, applicant respectfully requests that the §103 rejection of independent claims 30 and 34 be reconsidered and withdrawn.

Applicant notes the statement in the Office Action that Nguyen teaches that only the receiver in a mobile handset is powered down when the mobile station is not listening for a paging message (i.e., that other portions of the handset remain powered up at all times). From this, the Office Action appears to infer that the continuously powered portions of the handset maintain synchronization even when the receiver is powered down. Applicant respectfully disagrees. As is stated in the Office Action itself, synchronization of the receiver in Nguyen is derived during the receiver power up cycle based on a synchronization word embedded in a batch code word transmitted to the receiver. As described above, such synchronization on power up is possible in a POCSAG system due to the positive signal to noise ratios inherent in such a system. Absent the teachings of the present invention, however, such synchronization on power up is not possible in a code

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division multiple access system in which control and traffic channels occupy a common portion of the radio spectrum.

New claims 41 and 42 further delineate certain mobile power savings aspects of the present invention. Inasmuch as claims 41 and 42 depend from claims 30 and 34, respectively, applicants respectfully submit that claims 41 and 42 are allowable over the art of record for at least the reasons provided above with respect to claims 30 and 34.

Applicant further submits that new independent claims 43-44 are allowable over the documents of record for at least reasons similar to those set forth above with respect to the rejections of claims 30 and 34.

In view of all the above, applicant respectfully submits the present application is in condition for allowance, and prompt notice of the same is earnestly solicited. Should the Examiner have any questions regarding this response or the subject application in general, he or she is invited to contact the undersigned at the number provided below.

Respectfully submitted,

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